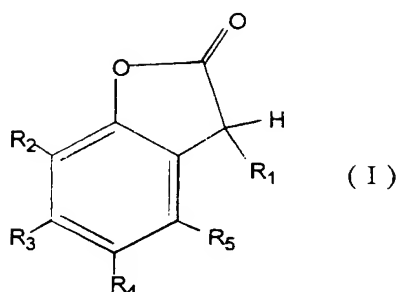


Claims

1. An aromatic monovinyl resin composition comprising (a) a polymer comprising an aromatic monovinyl monomer and having a weight average molecular weight of 150,000-700,000 and (b) a 3-arylbenzofuranone represented by the following formula (I):



- 10 (in the formula, R_1 represents a substituted or unsubstituted carbocyclic aromatic group or a substituted or unsubstituted heterocyclic aromatic group and R_2 , R_3 , R_4 and R_5 represent independently a hydrogen atom or an alkyl group of 1-5 carbon atoms),
- 15 wherein amount of the 3-arylbenzofuranone is 0.006-0.5% by weight based on the weight of the polymer and residual amount of the aromatic monovinyl monomer in the aromatic monovinyl resin composition is not more than 100 ppm.
- 20 2. An aromatic monovinyl resin composition according to claim 1, wherein the total residual amount of a dimer and a trimer of the aromatic monovinyl monomer is not more than 0.4% by weight.

3. A foamed sheet comprising the aromatic monovinyl resin composition of claim 1 or 2.
4. A non-foamed sheet comprising the aromatic monovinyl resin composition of claim 1 or 2.
- 5 5. A formed product comprising the foamed sheet of claim 3.
6. A formed product comprising the non-foamed sheet of claim 4.
7. A method for producing the aromatic monovinyl
10 resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a polymerization step in which the aromatic monovinyl monomer is polymerized.
8. A method for producing the aromatic monovinyl
15 resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a devolatilization step in which an unreacted material and/or a solvent are removed from a polymerization solution obtained at the polymerization
20 step.
9. A method for producing the aromatic monovinyl resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added after termination of the polymerization step and
25 before the devolatilization step.
10. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein the devolatilization is carried out until the

total residual amount of a dimer and a trimer of the aromatic monovinyl monomer reaches not more than 0.4% by weight at the devolatilization step.

11. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein after the 3-arylbenzofuranone is added to the polymerization solution, these are uniformly mixed.

12. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein the aromatic monovinyl monomer is polymerized by radical polymerization method, anionic polymerization method or ionic polymerization method using a polymerization initiator at the polymerization step.

13. A method for producing the aromatic monovinyl resin composition according to claim 7, wherein the 3-arylbenzofuranone represented by the formula (I) is added when polymerization rate of the aromatic monovinyl monomer reaches 50% or more.

14. A method for producing the aromatic monovinyl resin composition according to claim 7, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a polymerization temperature of 160°C or lower.